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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,942	08/07/2001	Nobuya Okuda	F-7109	4525

7590 02/25/2004
Jordan and Hamburg
122 East 42nd Street
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EXAMINER

CAPRON, AARON J

ART UNIT PAPER NUMBER

3714

DATE MAILED: 02/25/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/923,942

Applicant(s)

OKUDA ET AL

Examiner

Aaron J. Capron

Art Unit

3714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This is a response to the Amendment received on December 22, 2003, in which claims 1, 3, 5, 7 and 13-15 were amended. Claims 1-15 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ritchey (U.S. Patent No. 5,495,576).

Ritchey discloses a virtual reality/telepresence game (14:59-15:25) comprising a monitor (Figure 19), a game control unit; a display control unit for generating a 3D image viewed from a viewing point of a simulated camera for displaying the 3D image on a screen of a monitor; head detecting means for detecting at least of a position of a head of a game player located in a play area before the screen relative to the screen of the monitor and viewing point changing means for moving the viewpoint of the camera with respect to the position of the head (9:46-58).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchey as applied to claims 1-2, 6 and 15 above, and further in view of Ahdoot (U.S. Patent No. 5,913,727).

Referring to claim 3, Ritchey discloses a head detecting means and a head position determining means for determining a position of the head in at least one direction on the horizontal plane, but does not disclose including a sheet shaped pressure sensor. However, Ahdoot discloses a sheet shaped pressure sensor (Figure 1, item 70) in combination with 3D viewing means (Figure 1, item 61; 4:52-55). One would be motivated to combine the references in order to allow the ability to play other players by way of generating 3D images that are responsive to the player's movement (2:15-34). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the sheet shaped pressure sensor of Ahdoot into the device of Ritchey in order to allow the ability to play other players by way of generating 3D images that are responsive to the player's movement.

Referring to claim 4, Ritchey discloses the head detecting means further includes a distance-measuring sensor for remotely detecting a height position of the head (2:14-19).

Claims 5 and 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ritchey in view of Ahdoot as applied to claims 3-4 above, and further in view of Oh (U.S. Patent No. 5,616,078).

Referring to claim 5, Ritchey and Ahdoot disclose or suggest the pressure sensor being an analog sensor, but do not disclose calculating the center of gravity. However, Oh discloses calculating the center of gravity based upon the plurality of sensors/markers in order to smoothly manipulate the game character and sufficiently reproduce the motions of the game player (2:1-4). One would be motivated to combine the references in order to more smoothly manipulate the game character and more sufficiently reproduce the motions of the game player. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate calculating the center of gravity of Oh into the device of Ritchey and Ahdoot in order to smoothly manipulate the game character and sufficiently reproduce the motions of the game player.

Referring to claim 7, Ritchey in view of Ahdoot and Oh disclose the distance measuring sensor includes one propagation medium transmitter, a first and second propagation medium receivers arranged in two positions along the transverse direction of the screen of the monitor at the opposite sides of the propagation medium transmitter and adapted to receive propagation mediums transmitted from the propagation medium transmitter and reflected by the game player's head (Ahdoot Figure 1), and the head detecting means includes a head position determined means for determining the position of the head of the game player based on lapses of time from a point of time of transmission to reception by the first and second propagation medium receivers (Oh 6:10-18).

Referring to claim 8, Ritchey in view of Ahdoot and Oh disclose the head detecting means includes a position detecting sensor for detecting a 3D position of the head and the position detecting sensor includes one propagation medium transmitter, at least three propagation

medium receivers located around the propagation medium transmitter and in different positions on a horizontal plane (Ahdoot: Figure 1) and adapted to receive propagation mediums transmitted from the propagation medium transmitter and reflected by the game player's head and head position determining means for determining a position of the game player's head in the 3D space based on lapses of time.

Referring to claim 9, Ritchey in view of Ahdoot and Oh disclose the distance measuring means includes a plurality of propagation medium transmitting and receiving devices arranged in a linear direction on a horizontal plane located above the player area and faced downward (Oh: Figure 1) and head position determining means for determining a position of the game player's head in the 3D space based on lapses of time.

Referring to claim 10, Ritchey in view of Ahdoot and Oh discloses a head detecting means, and that a motion capture unit can capture images of the player in order to allow the player to control the movement of the game character on the game screen (Oh: 4:19-35, 5:24-30).

Referring to claim 11, Ritchey in view of Ahdoot and Oh disclose a background-deleting surface provided at a side of the play area opposite from the image pickup means (Oh: reference sheet, claim 14).

Referring to claims 12 and 14, Ritchey in view of Ahdoot and Oh discloses a head detecting means includes an infrared camera (Oh 4:50-5:3), an infrared emitting member fittable on the game's player head; and a head image extracting means for extracting an image of the game player's head from an image obtained by receiving infrared rays from the infrared emitting member, wherein the member having an infrared reflecting surface (Oh: 4:50-4:58).

Referring to claim 13, Ritchey in view of Ahdoot and Oh disclose a member having an infrared reflecting surface to monitor the information with respect to the infrared light, but does not disclose that the member absorbs infrared light. However, it is notoriously well known within the art that an infrared absorbing member can be provided at a side of the play area opposite from the camera in order to repress infrared radiation. One would be motivated to provide an infrared absorbing member in order to absorb the heat that is coming from the game device. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate an infrared absorbing member into the game device of Ritchey in view of Ahdoot and Oh in order to absorb the heat that is caused by the game device.

Response to Arguments

Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments, see pages 12-13, filed December 22, 2003, with respect to the rejection(s) of claim(s) 1-15 under JP '187 have been fully considered and are persuasive. Applicants pointed out that JP '187 failed to disclose the head detecting means for detecting at least a position of the head in at least one linear direction. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Ritchey.

Conclusion

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron J. Capron whose telephone number is (703) 305-3520.

The examiner can normally be reached on M-Th 8-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on (703) 308-1806. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ajc



JESSICA HARRISON
PRIMARY EXAMINER